UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

INTERNATIONAL BUSINESS
MACHINES CORPORATION,

Plaintiff,

v.

ZILLOW GROUP, INC.; and
ZILLOW, INC.,

Defendants.

C20-0851 TSZ

ORDER

THIS MATTER comes before the Court to construe certain claim terms of United

States Patent No. 9,245,183 (the "'183 Patent") pursuant to _Markman v. Westview_

Instruments, Inc., 52 F.3d 967 (Fed. Cir. 1995), and _Phillips v. AWH Corp._, 415 F.3d

1303 (Fed. Cir. 2005). Having reviewed the parties' respective opening and responsive

briefs and supporting materials, including the patent-in-suit, _see_ '183 Patent, Ex. 50 to

2d Am. Compl. (docket no. 156-21) the Court enters the following Order.

Background

Plaintiff International Business Machines Corporation ("IBM") owns the

'183 Patent, which discloses a "method and system for mapping the conditions of

locations." '183 Patent at Abstract (docket no. 156-21 at 2). Earlier in this litigation,

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1 defendants Zillow Group, Inc. and Zillow, Inc. (collectively, "Zillow") challenged the

2 '183 Patent pursuant to 35 U.S.C. § 101 and *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208

3 (2014). *See* Order (docket no. 171) [hereinafter "§ 101 Order"]. The Court denied

4 Zillow's motion for judgment on the pleadings, brought under Federal Rule of Civil

5 Procedure 12(c), concluding that, although the '183 Patent is directed to an abstract idea,[1]

6 IBM had pleaded a plausible claim that the patent sets forth an inventive concept, which

7 IBM contends is a method for computers to recognize objects or conditions within

8 images. *See id.* at 31–40. The Court left open the possibility, however, that the

9 '183 Patent might not withstand future attacks and reserved the merits of Zillow's

10 invalidity defenses for "another day." *Id.* at 39–40. Another day has now arrived, and in

11 the context of claim construction, Zillow seeks a ruling that the '183 Patent is invalid for

12 indefiniteness, relying on the following provision of the Patent Act:

13
14 The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.

15 35 U.S.C. § 112(b).

16

17 _____

18 [1] In the § 101 Order, the Court concluded that the representative claims of the '183 Patent are directed to the abstract idea of retrieving and using "image data" associated with particular

19 locations within a specified geographical area to ascribe to the overall condition of the area a numerical value that would be plotted on a map. § 101 Order at 34–35. The Court rejected IBM's contention that humans could not perform the method outlined in the '183 Patent,

20 observing that an individual or group of individuals could view photographs taken at particular locations within a specified geographical area and, based on a scoring convention, compute and

21 reflect on a map a numerical value reflecting the overall condition of the area. *Id.* at 35–36. A computer's ability to accomplish the tasks more quickly does not render the concepts articulated

22 in the '183 Patent any less abstract. *Id.* at 36.

23

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1   The '183 Patent has 20 claims, three of which are independent, namely Claims 1,

2 11, and 20. The parties ask the Court to construe five claim terms, all of which appear in

3 at least Claim 1, which recites the following elements:

4   **1.** A method comprising:

5   **retrieving in real time**, by **a computer processor** of a computing system,
     image data associated with a plurality of locations within a specified
6   geographical area;

7   comparing, by **said computer processor**, said **image data** to a plurality of
     stored **image data**, wherein said plurality of stored **image data** comprise
8   baseline measurement values associated with an expected condition level
     of baseline locations within a baseline geographical area;
9

10   calculating, by **said computer processor** based on results of said comparing,
     condition score values associated with said plurality of locations,
11   wherein said **condition score values** indicate **real time condition values**
     associated with said plurality of locations;
12

13   calculating, by **said computer processor** based on said **condition score values**, an overall **condition score value** associated with said specified
     geographical area; and
14

15   generating, by **said computer processor**, a map indicating said overall
     condition score value associated with said specified geographical area.

16 '183 Patent at 10:13–32 (disputed claims terms highlighted).

17   Zillow contends that four of the disputed claim terms, namely "image data,"

18 "condition score value(s)," "retrieving in real time . . . image data," and "real time

19 condition values," are indefinite. With regard to the fifth disputed claim term, the parties

20 disagree concerning whether "**a** computer processor," when followed by "**said** computer

21 processor," means "a single computer processor," as Zillow asserts, or "one or more

22 computer processors," as IBM suggests.

23

1   **Discussion**

2   **A.   Claim Construction Standards**

3   The Court has both the authority and the obligation to construe as a matter of law

4   the meaning of language used in a patent claim. *Markman*, 52 F.3d at 979. In doing so,

5   the Court must consider the intrinsic evidence in the record, meaning the claims, the

6   specification, and the prosecution history.[2] *Id.* The specification is "the single best guide

7   to the meaning of a disputed term." *Phillips*, 415 F.3d at 1315. The words of a patent

8   claim are generally assigned their "ordinary and customary meaning," *id.* at 1312,

9   namely, the definition ascribed by "a person of ordinary skill in the art in question at the

10 time of the invention," *id.* at 1313, but if the specification reveals a different construction,

11 then the inventor's lexicography must trump the common understanding, *id.* at 1316. The

12 context in which a claim term is used might also be instructive. *Id.* at 1314. In addition,

13 the other claims of a patent might illuminate the meaning of a term, through consistent

14 usage of the same term, or the inclusion in a dependent claim of an additional term that is

15 not present in the related independent claim. *Id.* at 1314–15.

16   When the claim terms are, however, clear enough to permit the trier of fact to

17 perform its work, the Court need not engage in further analysis or attempt to rewrite or

18 otherwise alter the language that has received the imprimatur of the United States Patent

19 and Trademark Office ("PTO"). *See Ballard Med. Prods. v. Allegiance Healthcare*

20 _____

21 [2] In this matter, the parties have not identified, or provided copies of, any portion of the
    prosecution history, and thus, the claims and the specification constitute the only intrinsic
22 evidence of record.

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1   *Corp.*, 268 F.3d 1352, 1358 (Fed. Cir. 2001) ("*Markman* does not require a district court

2   to follow any particular procedure in conducting claim construction. It merely holds that

3   claim construction is the province of the court, not a jury. . . . As long as the trial court

4   construes the claims *to the extent necessary* to determine whether the accused device

5   infringes, the court may approach the task in any way that it deems best." (emphasis

6   added)).

7   **B.**   **Indefiniteness**

8   A patent is presumed valid. 35 U.S.C. § 282(a). Such presumption may be

9   overcome on the ground of indefiniteness if a patent's "claims, read in light of the

10   specification delineating the patent, and the prosecution history, fail to inform, with

11   reasonable certainty, those skilled in the art about the scope of the invention." *Nautilus,*

12   *Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 901 (2014). An invalidity defense must be

13   proven by "clear and convincing evidence." *Microsoft Corp. v. i4i Ltd. P'ship*, 564 U.S.

14   91, 95 (2011). The certainty that the law requires in patents is measured by a standard of

15   reasonableness and, in evaluating a claim for indefiniteness, the Court must take into

16   account the "inherent limitations of language," as well as the "modicum of uncertainty"

17   that is the "price of ensuring the appropriate incentives for innovation." *Biosig*

18   *Instruments, Inc. v. Nautilus, Inc.*, 783 F.3d 1374, 1378–79 (Fed. Cir. 2015) (quoting

19   *Nautilus*, 572 U.S. at 909). A patent must, however, be "precise enough to afford clear

20   notice of what is claimed, thereby 'appris[ing] the public of what is still open to them.'"

21   *Id.* at 1378 (quoting *Nautilus*, 572 U.S. at 909 (alteration in original) (quoting *Markman*,

22   517 U.S. at 373)).

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1   The Court agrees with Zillow that the term "image data" is indefinite. IBM

2 proposes that "image data" be construed to mean "data comprising unstructured data

3 from images." *See* IBM's Op. Br. at 18 (docket no. 203). IBM's interpretation is not

4 consistent with the specification of the '183 Patent. The specification provides an

5 implementation example in which "image data" is used to identify a "key condition" and

6 assign it a "condition score" ranging from 1 to 10, with 10 being the least desirable

7 condition. '183 Patent at 4:17–26. For example, according to the specification, a "key

8 condition" of "Maintained [B]uildings" receives a "condition score" of "1," while the

9 "key conditions" of "Graffiti," "Abandoned Car," and "Broken Window(s)" are attributed

10 "condition scores" of "7," "9," and "10," respectively. *Id.* at Tables 1, 2, & 3. The

11 specification treats each "key condition" as "unstructured data" within the image data.

12 *Id.* at 3:28–32 ("The unstructured data may identify, inter alia, a condition of a village

13 green, a condition of residential landscaping, debris left in roadways, a condition of

14 residential houses (e.g., paint damage, damaged shingles, etc.), etc.").

15   The specification illustrates "a system **100** for enabling a process for determining

16 an overall condition of a geographical area." '183 Patent at 2:50–51. The system **100**
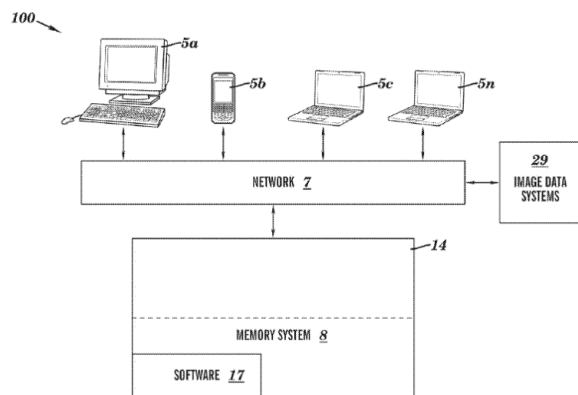
17 includes "devices **5a** . . . **5n** and image data

18 systems **29** connected through a network **7**

19 to a computing system **14**," which includes a

20 memory system **8** containing software **17**.

21 *Id.* at 2:66–3:18 & Fig. 1 (reproduced at left).

22 Image data systems **29** are "any type of

FIG. 1

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1   image data retrieval systems for retrieving **image data (e.g., a video stream, still video**

2   **images, etc.)** from, inter alia, cameras (e.g., traffic cameras, security cameras, personal

3   cameras, etc.), social networking Websites, etc." *Id.* at 3:7–12 (emphasis added).

4   The above-quoted language demonstrates that, contrary to IBM's suggestion,

5   the specification does not limit "image data" to the "unstructured data" within an image.

6   Rather, the specification treats "image data" as all data associated with an image, i.e., the

7   entire "**video stream**" or "**still video image**," including the bits and bytes that indicate

8   hue, saturation, and brightness within each pixel of the image, as well as the metadata

9   associated with the image (e.g., the file creation date and time, the file size, any global

10   positioning system ("GPS") data, and, for streaming content, the bitrate).[3] *See id.* at 4:22

11   (referring to "geo-tagged image data"); *see also* Madisetti[4] Decl. at ¶¶ 63 & 64, Ex. B to

12   Joint Claim Constr. & Prehrg. Stmt. (docket no. 192-2) (quoting IBM DICTIONARY OF

13   COMPUTING (10th ed. 1994) (defining "image data" as "[d]igital data derived from

14   electrical signals that represent a visual image," and "binary image data" as "[a] pattern

15   of bits with 0 and 1 values that define the pels [or pixels] in an image") and MICROSOFT

16

17   ――――――――――――

18   [3] As an alternative to asserting that "image data" is indefinite, Zillow proposes to interpret the
     term as meaning "a pattern of bits that represents the brightness and/or color values for each
     pixel of an image captured by a camera." *See* Zillow's Op. Br. at 3 (docket no. 211-1). Zillow's

19   construction confuses color (or hue, e.g., blue, red, yellow, etc.) with value (the amount of black
     and white), and, just like IBM's proposal, ignores other important metadata.

20   [4] IBM attempts to discredit Zillow's expert, Vijay Madisetti, Ph.D., as offering "litigation-
     inspired opinions" that contradict statements made in other contexts. *See* IBM Op. Br. at 13–14

21   (docket no. 203). Madisetti's credibility, however, is not at issue in connection with the cited
     portions of his declaration because those paragraphs merely recite definitions in IBM's own, as

22   well as Microsoft's, dictionary.

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1   COMPUTER DICTIONARY (5th ed. 2002) (defining "image" as "[a] stored description of a

2   graphic picture, either as a set of brightness and color values of pixels or as a set of

3   instructions for reproducing the picture")).

4   The interpretation that "image data" includes all data associated with an image,

5   including structured data, is consistent with the specification's explanation that "[i]mage

6   data systems **29 <u>generate</u>** unstructured data that is filtered and analyzed for relevant

7   elements. The unstructured data is **<u>extrapolated</u>** to determine a condition for the

8   specified geographical area." '183 Patent at 3:25–28 (emphasis added). Notably,

9   although the specification envisions that "image data **<u>systems</u>**" **29** will perform some

10 function or operation to "generate" or "extrapolate" unstructured data from "image data,"

11 the claim language does not incorporate this step. Indeed, neither the phrase "image data

12 systems" nor the word "unstructured" appears in any claim of the '183 Patent. *See id.* at

13 Cols. 10–12.

14   In proclaiming that "unstructured data" is "from the specification," *see* IBM Op.

15 Br. at 19 (docket no. 203), IBM completely ignores the verbiage indicating that "image

16 data systems" **<u>generate</u>** unstructured data. In other words, contrary to IBM's assertions,

17 "image data" is not inherently unstructured; rather unstructured data within "image data"

18 must be "generated." IBM also neglects the consequences of restricting "image data" to

19 "unstructured data." Doing so would render unavailable the structured geographical and

20 other metadata necessary to associate the unstructured data with a particular location or

21 with current or "real time" conditions. Absent any GPS data, the system described in the

22 '183 Patent could not make location-related calculations or plot a map indicating an

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1   overall condition score value associated with a specified geographical area, which are the

2   deliverables of the claimed invention.

3   Neither the intrinsic evidence in the record nor the extrinsic evidence offered by

4   IBM[5] supports ascribing to "image data" something other than the ordinary meaning of

5   each word in the phrase. Such interpretation does not, however, enable a person of

6   ordinary skill in the art to practice the invention disclosed in the '183 Patent, and the

7   disputed claim term must therefore be declared indefinite. In essence, the '183 Patent

8   teaches that "image data" should be retrieved and compared with "stored image data."

9   *See* '183 Patent at 10:14–18. This claim language encompasses the comparison of

10   structured data for one image (e.g., pixel-by-pixel hue, value, and brightness, capture date

11

12   [5] IBM cites two earlier patents, namely U.S. Patent Nos. 7,415,356 (the "'356 Patent") and
6,373,963 (the "'963 Patent"), to support the proposition that "image data" was a term known in
13   the art as of 2014, the year that the application giving rise to the '183 Patent was filed. Both
patents actually contradict IBM's construction of "image data." The '356 Patent indicates that a
14   conventional approach to displaying aerial images involves "image data" that is "captured" by
taking numerous photographs from an airplane or satellite and then "processed" by concatenating
15   the geo-tagged photographs together on the surface of a sphere, which represents Earth. *See*
'356 Patent at 1:24–32 (except at Ex. D8 to Peaslee Decl. (docket no. 202-6)). The '963 Patent,
16   which offers a method for measuring the surface contour of an object, discloses an embodiment
including a controller connected to both "the projector **16** (to control the timing of projection)"
17   and "the camera **18** (to retrieve **image data** gathered by the camera **18**)" of "each of the sensors
14a-14f." *See* '963 Patent at 5:25–29 (emphasis added) (excerpt at Ex. D7 to Peaslee Decl.
18   (docket no. 202-5)). The '963 Patent further states that the controller incorporates software that
"can be written in virtually any computer language known to be suitable for processing image
19   data." *Id.* at 5:37–39. As explained by IBM's expert, "[w]ithout additional processing,
unstructured data generally cannot be organized and stored in a relational database for ready
20   retrieval by a search in the manner [that] structured data can." Grindon Decl. at ¶ 72 (docket
no. 204-1). Neither patent cited by IBM, however, teaches a method for managing unstructured
21   data; the '356 Patent uses "image data" only to describe prior art, and the '963 Patent relies on
generic software for "processing image data." Thus, both patents must be viewed as using the
words "image data" to mean all data captured by a camera or similar device, including structured
22   data, the handling of which was familiar to a person of ordinary skill in the art.

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1   and time, GPS coordinates, etc.) with structured data for another image, which is neither

2   novel nor sufficient to effectuate the method described in the '183 Patent. The term

3   "image data," when interpreted in light of the specification, and the steps "retrieving . . .

4   image data" and "comparing . . . image data" do not make clear that a group of pixels

5   within a digital photograph or video should be collectively interpreted as an object

6   (e.g., a house, window, or car) or a condition (e.g., maintained, broken, or abandoned) or

7   explain how the extrapolation and comparison of such unstructured data could be

8   performed. Zillow has satisfied its burden of proving that the term "image data" is

9   unreasonably vague. Not only does IBM's proposed construction improperly assign a

10 meaning to the words "image data" that is simultaneously both more and less than the

11 specification indicates was intended, IBM's suggested interpretation would not achieve

12 the promised inventive concept. The term "image data" is indefinite, and the '183 Patent

13 is invalid under §112.

14 **C.   Claim Construction**

15   In contrast, Zillow has not met its burden of establishing that other claim terms are

16 themselves indefinite, as opposed to indefinite merely because they refer to or rely on the

17 term "image data." The Court therefore interprets the remaining disputed claim terms as

18 follows.

19   **1.   "Condition Score Value(s)"**

20   The Court rejects IBM's proposed construction of "condition score values" as

21 "scores assigned to discrete elements within an image aligned to categories representative

22 of various environmental conditions." *See* IBM Op. Br. at 16 (docket no. 203). For the

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1 following reasons, the Court will adopt, with modification for ease of comprehension,

2 Zillow's interpretation. *See* Zillow Op. Br. at 11 (docket no. 211-1) (suggesting that

3 "condition score value" means "the averaged condition score of each of the individual

4 condition scores associated with each of the key conditions in the image data"). IBM

5 does not point to any established meaning of "condition score value(s)" in the art at the

6 time of the patent application (or even subsequently), and it relies exclusively on the

7 specification as support for its interpretation of this claim element. Zillow counters that

8 the specification uses the term in inconsistent ways and that, as a result, a person of

9 ordinary skill in the art could not decipher its meaning. The Court disagrees with Zillow;

10 the specification uses similar, but different, phrases in consistently distinct ways.

11   The phrase "condition score value(s)" appears 25 times in the specification of the

12 '183 Patent. In eleven (11) instances, the term is preceded by the word "overall," thereby

13 forming an entirely different claim element, i.e., "overall condition score value," which is

14 "associated with the [or said] specified geographical area." *See* '183 Patent at Abstract,

15 1:38–41, 1:59–62, 2:17–18, & 6:63–7:5; *see also id.* at 10:28–32 (Claim 1). In contrast,

16 "condition score values" (without the adjective "overall") "indicate real time condition

17 values[6] associated with the plurality of [or multiple] locations." *See id.* at Abstract,

18 1:34–36, 1:56–57, 2:11–13, 10:24–26 ("plurality"); *see also id.* at 6:58–59 ("multiple").

19 The specification makes clear that "overall condition score value" is not equivalent to

20

21

[6] The term "real time condition values" appears five (5) times in the specification, but it is never
22 defined. *See* '183 Patent at Abstract, 1:35, 1:56, 2:12, & 6:59.

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1 "condition score value(s)," but rather is computed from several figures, some of which

2 might be the "condition score values." _See_ _id._ at 6:63–7:1 ("an **overall condition score**

3 **value** . . . is calculated based on the **condition score values**, street condition scores, and

4 neighborhood condition scores" (emphasis added)).

5   The specification also offers explanations for the phrases "key condition(s)" and

6 "condition score(s)," which are not claim terms, and then uses these words in a consistent

7 manner. In three separate tables, "key condition" is defined by example ("No Parking,"

8 "Abandoned Car," "No Street Lighting," "Broken Window(s)," "Graffiti," "Garbage,"

9 "Neat Lawns," "Maintained Trees," "Maintained [B]uildings," "Maintained Windows"),

10 and each "key condition" is associated with a certain "condition score," ranging from

11 1 to 10. _Id._ at Tables 1–3. The three tables enumerate "key conditions" drawn from,

12 respectively, a first traffic camera image, a second traffic camera image, and a smart

13 phone image (with each image captured at a different location), and for each table (or

14 image), the specification offers an "averaged condition score." _See_ _id._ at Cols. 4–5 (the

15 "averaged condition score" for Table 1 (first traffic camera image) is 7.25, for Table 2

16 (second traffic camera image) is 7, and for Table 3 (smart phone image) is 1.00).

17   To summarize, the specification indicates that a "key condition" has a "condition

18 score." An image, associated with a particular location, might have more than one "key

19 condition," and an "averaged condition score" for the image may be computed. For

20 example, a location, say the corner of Seventh Avenue and Stewart Street in Seattle,

21 might be captured in several images, ranging from traffic camera feeds, to security

22 camera footage, to news camera recordings, to smart phone photographs. For each

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1   image, each "key condition" (e.g., well-maintained courthouse lawn and trees, boarded

2   courthouse windows, lack of parking on Stewart Street) would receive a "condition

3   score," and each image would have an "averaged condition score." The "condition score

4   value" for the corner of Seventh Avenue and Stewart Street would be the average of the

5   "averaged condition scores" for all images or, in other words, the average of all

6   "condition scores" for all "key conditions" in all images associated with the particular

7   location. This interpretation is consistent with Zillow's proposal, which was offered as

8   an alternative to an indefiniteness finding.

9   IBM's definition for "condition score value(s)," i.e., "scores assigned to discrete

10 elements within an image aligned to categories representative of various environmental

11 conditions," IBM Op. Br. at 16 (docket no. 203), is better suited for "condition score,"

12 which the specification links to the "discrete elements" (pixels) in an image that could be

13 understood as a "key condition." Adopting IBM's construction would eliminate the

14 process, articulated in the specification, through which two or more images of a particular

15 location are used to develop an average of the "averaged condition scores," also known

16 as the "condition score value," for the particular location. Thus, IBM's interpretation

17 impermissibly "enlarge[s], diminish[es], or var[ies]" the limitations in the claims. _See_

18 _Markman_, 52 F.3d at 980. The Court concludes that a "condition score value" is "the

19 average of all condition scores for all key conditions in all 'image data' associated with a

20 particular location."

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1   **2.**   **"Real Time"**

2   The Court is persuaded that "real time" is reasonably definite, but declines to

3 adopt either party's construction. The term "real time" can be a noun or an adjective.

4 The '183 Patent uses the phrase in both ways, as a noun in "retrieving in real time . . .

5 image data" and as an adjective in "real time condition values." The specification offers

6 no definition for the words "real time." _See_ '183 Patent at Cols. 1–2 & 6.

7   In ordinary parlance, the noun "real time" means "[t]he actual time during which a

8 process or event occurs." OXFORD ENGLISH DICTIONARY ONLINE (Sep. 2022), https://

9 www.oed.com/view/Entry/238662 [hereinafter "OED Online"]. In connection with

10 streaming video, like traffic or security camera feeds, the phrase "retrieving in real time

11 . . . image data" is easily understood as meaning retrieving in or at the actual time that the

12 video (image data) is captured or recorded, as opposed to retrieving at a later time and/or

13 at a different (perhaps faster) speed. Zillow has not offered a definition for "real time" as

14 a noun. IBM proposes to substitute the adjective "current." _See_ IBM Op. Br. at 22

15 (docket no. 203). IBM's suggestion, which would turn the phrase "retrieving in real time

16 . . . image data" into "retrieving . . . current image data," ignores the preposition "in" that

17 precedes "real time," which signifies that the term is a noun, not an adjective. _See_

18 Bernard C. Lamb, THE QUEEN'S ENGLISH AND HOW TO USE IT 45 (2010) ("Prepositions

19 . . . usually occur before the noun or pronoun to which they apply . . . ."). Contrary to

20 IBM's position, "real time" does not modify "image data," and substituting "current" for

21 "real time" as a modifier of "image data" is both grammatically and analytically

22 improper. With respect to the term "retrieving in real time . . . image data," the Court

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1 concludes that the noun "real time" has a commonly understood meaning, which is clear

2 enough to permit a jury to perform its work. *See* *Ballard Med. Prods.*, 268 F.3d at 1358.

3   As an adjective, "real time" describes a system in which "data is processed so

4 quickly . . . that [results are] available virtually immediately." *See* OED Online. Thus,

5 the phrase "real time condition values" connotes that the method (retrieval, comparison,

6 and calculation) described in the '183 Patent occurs rapidly enough that the user

7 perceives the condition values to be instantaneously provided. This interpretation is

8 consistent with the definitions provided by Zillow from technical dictionaries. *See*

9 Zillow Op. Br. at 6–7 (docket no. 211-1) (quoting inter alia MICROSOFT COMPUTER

10 DICTIONARY (defining real-time operations as "those in which the machine's activities

11 match the human perception of time")).

12   In arguing that the term "real time" is indefinite, Zillow focuses on a technical,

13 as opposed to a plain, meaning of the phrase. Citing a dictionary of standard terms

14 published by the Institute of Electrical and Electronics Engineering, Inc. ("IEEE"), as

15 well as the IBM and Microsoft dictionaries, Zillow argues that "retrieving in real time"

16 can be understood only "with reference to a set of time constraints imposed by an

17 external process." Zillow Op. Br. at 6–7 (docket no. 211-1). Zillow does not explain,

18 however, why the definitions that it has chosen from the three dictionaries apply.

19   The IEEE dictionary offers seven definitions of "real time," each depending on the

20 context in which the term is used. *See* Ex. C to Peaslee Decl. (docket no. 202-3). The

21 first definition, which Zillow quotes in full, relates to physical processing or emergency

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1   and standby power,[7] which are not the subject of the '183 Patent. The IEEE's second-

2   listed meaning, however, tracks the common understanding of real time; it defines the

3   term as "[t]he actual time in the real world during which an event takes place." Ex. C to

4   Peaslee Decl. (docket no. 202-3 at 5). Zillow provides no rationale for disregarding the

5   second definition in the IEEE dictionary, which would render "retrieving in real time . . .

6   image data" sufficiently definite to pass muster under § 112.

7   From the IBM dictionary, Zillow has quoted a definition used in "Open Systems

8   Interconnection architecture" that indicates real time "pertain[s] to the processing of data

9   by a computer in connection with another process outside the computer according to time

10   requirements imposed by the outside process." *See* Ex. A to Peaslee Decl. (docket

11   no. 202-1 at 10). Zillow makes no assertion that the '183 Patent involves "Open Systems

12   Interconnection architecture," and it fails to identify an external process in connection

13   with which the invention in the '183 Patent is allegedly processing data. Zillow's

14   reliance on the IBM dictionary runs contrary to the doctrines of (i) assigning claim terms

15   their "ordinary and customary meaning" unless the specification dictates otherwise, and

16   (ii) construing claim terms consistently with the context in which they are used. *See*

17   *Phillips*, 415 F.3d at 1312–14.

18

19   _____

20   [7] The IEEE dictionary's first definition reads: "**real time (1) (processing) (emergency and standby power)** Pertaining to the actual time during which a physical process transpires or
21   pertaining to the performance of a computation during the actual time of related physical processing in order that results of the computation can be used in guiding the physical process."
22   Ex. C to Peaslee Decl. (docket no. 202-3 at 5) (emphasis in original).

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ORDER - 16

1   With respect to the Microsoft dictionary, Zillow has engaged in "cherry picking."

2   Microsoft treats "real-time" solely as an adjective, not as a noun, and its dictionary

3   indicates that "[r]eal-time operations are those in which the machine's activities match

4   the human perception of time **or** those in which computer operations proceed at the same

5   rate as a physical or external process." Ex. B to Peaslee Decl. (docket no. 202-2 at 6)

6   (emphasis added). In asserting that the '183 Patent is indefinite because it does not

7   identify an external time constraint or process, Zillow ignores the first clause of the

8   Microsoft definition, which precedes the disjunctive "or," and it offers no justification for

9   doing so. Moreover, Zillow does not explain why the '183 Patent fails to satisfy the

10   second part of the Microsoft definition; a streaming video would appear to qualify as an

11   external process that dictates the speed or rate at which the invention at issue must

12   proceed (i.e., retrieve image data). Zillow has not met its burden of establishing that the

13   disputed claim terms involving the words "real time" are indefinite.

14   As an alternative to its indefiniteness challenge, Zillow proposes to substitute for

15   the term "real time condition values" the phrase "condition values based on images

16   captured immediately before said calculation," _see_ Zillow Op. Br. at 6 (docket no. 211-1),

17   so that the claim language at issue reads:

18   calculating . . . condition score values associated with said plurality of
     locations, wherein said condition score values indicate **condition values**
19   **based on images captured immediately before said calculation** associated
     with said plurality of locations.

20   _See_ '183 Patent at 10:22–26 (highlighted text incorporated in lieu of "real time condition

21   values"). Zillow's suggested interpretation renders the claim element nonsensical and

22   improperly imports a limitation that is not otherwise present.

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ORDER - 17

1   IBM's proposed substitution of "current" for "real time" would result in the

2 following wording:

3   calculating . . . condition score values associated with said plurality of
        locations, wherein said condition score values indicate **current** condition
4   values associated with said plurality of locations.

5 *See id.* at 10:22–26 (highlighted text incorporated in lieu of "real time"). Zillow contends

6 that "current" is itself indefinite. As an adjective, "current" signifies that the modified

7 noun is "occurring in or belonging to the present time" (the *current* crisis), "presently

8 elapsing" (the *current* year), or "most recent" (the *current* magazine issue). *See*

9 WEBSTER'S THIRD NEW INT'L DICTIONARY 557 (1981). As Zillow observes, "current" is

10 a word of degree. Within the context at issue, one "condition value" might be more

11 current than another, and both might be days, months, or years old, yet be the most recent

12 for the particular location. The Federal Circuit has accepted claim language employing

13 terms of degree when it has "provided enough certainty to one of skill in the art when

14 read in the context of the invention." *Biosig*, 783 F.3d at 1378. The word "current" does

15 not, however, appear in the claims of the '183 Patent, and the Court declines to introduce

16 uncertainty by using an alleged synonym for a term approved by the PTO. The term

17 "real time condition values" means what it says.

18   **3.   Singular Versus Plural Elements**

19   The final dispute involves the term "computer processor of a computing system,"

20 which is introduced with the indefinite article "a," and then referenced later with the

21 definite articles "said" and "the." In patent parlance, when used in "open-ended claims

22 containing the transitional phrase 'comprising,'" an indefinite article (i.e., "a" or "an")

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1   means "one or more." *Convolve, Inc. v. Compaq Computer Corp.*, 812 F.3d 1313, 1321

2   (Fed. Cir. 2016) (quoting *KCJ Corp. v. Kinetic Concepts, Inc.*, 223 F.3d 1351, 1356 (Fed.

3   Cir. 2000)). Unless an exception to this "general plural rule" applies, the appearance of

4   definite articles (i.e., "said" or "the") to further define an element "simply reinvokes that

5   non-singular meaning." *See Baldwin Graphic Sys., Inc. v. Siebert, Inc.*, 512 F.3d 1338,

6   1342 (Fed. Cir. 2008).

7   Only in rare circumstances will an exception to the "general plural rule" be

8   properly invoked, and only when "the patentee evinces a clear intent" to limit the article

9   "a" to require exactly or solely one, as opposed to "at least one." *See KCJ Corp.*, 223

10 F.3d at 1356. In ascertaining the patentee's intent and deciding whether to depart from

11 the "general plural rule," the Court may, as in all matters of claim construction, consider

12 the language of the patent claims, the specification, and the prosecution history. *See*

13 *Baldwin*, 512 F.3d at 1343 (citing *Abtox Inc. v. Exitron Corp.*, 122 F.3d 1019, *amended*

14 *on other grounds by* 131 F.3d 1009 (Fed. Cir. 1997), and *Insituform Techs., Inc. v. Cat*

15 *Contracting, Inc.*, 99 F.3d 1098 (Fed. Cir. 1996)); *see also KCJ Corp.*, 223 F.3d at 1356

16 ("an applicant may disclaim before the PTO a plural interpretation and thus lose the

17 benefit of the customary meaning of indefinite articles in patent claims").

18   In *Convolve*, the Federal Circuit distinguished between two patent claims

19 (Claims 9 and 15) in which "a processor" meant "one or more processors" and three

20 patent claims (Claims 1, 3, and 5) in which "a processor" was interpreted as a "single

21 processor." 812 F.3d at 1321. Unlike the former claims, the latter claims demonstrated

22 "a clear intent to tie the processor . . . to the 'user interface'" and, as a result, the Federal

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ORDER - 19

1   Circuit concluded that Claims 1, 3, and 5 "require[d] the user interface to work with a

2   single processor in performing all of the claim steps." _Id._ Similarly, in _Omega Patents,_

3   _LLC v. Firstech, LLC_, No. C20-1344, 2021 WL 5447943 (W.D. Wash. Nov. 22, 2021),

4   this Court concluded that "a controller," which appeared in two different patents, was

5   singular because it was connected to certain "said" devices, namely "said wireless

6   communications device" and "said vehicle position determining device," which were

7   themselves singular. _Id._ at *4. The Court, however, noted that a single controller need

8   not be a single device. _See id._ at *5 (citing _Automed Techs., Inc. v. Microfil, LLC_, 244 F.

9   App'x 354, 356–58 (Fed. Cir. 2007)).

10   Zillow relies on both _Convolve_ and _Omega Patents_ to argue that the '183 Patent

11   discloses a single computer processor. Unlike the patents-in-suit in _Convolve_ and _Omega_

12   _Patents_, however, the '183 Patent does not tie or connect a computer processor to another

13   claim element. Rather, "said computer processor" performs various functions, namely

14   retrieving and comparing image data, calculating condition score values associated with

15   particular locations and an overall condition score value associated with a specified

16   geographical area, and generating a map. _See_ '183 Patent at Claims 1, 11, & 20. Zillow

17   contends that all of these steps must be accomplished by the same processor because "[a]

18   processor cannot compare image data that it does not have." Zillow Op. Br. at 10 (docket

19   no. 211-1). Zillow does not explain, however, why one processor could not retrieve and

20   compare while another processor calculates the requisite values and/or generates a map.

21   Multiple processors can presumably relay data back and forth as necessary to carry out

22   the operations enumerated in the '183 Patent. Zillow further argues that the specification

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ORDER - 20

1 refers to "processor" in only a singular manner and includes a diagram showing only one

2 processor. *Id.* (citing '183 Patent at Fig. 6, element **91**). In discussing Figure 6
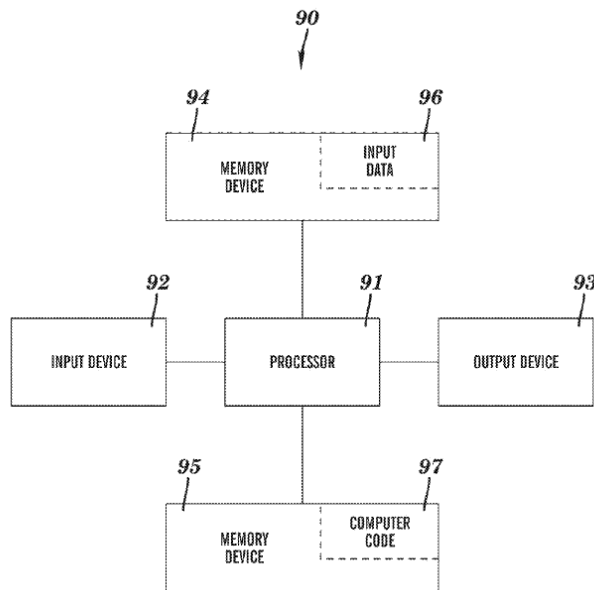
3 (reproduced at left), however, the

4 specification makes clear that the

5 illustrated system is only "a particular

6 configuration of hardware and

7 software," that "any configuration of

8 hardware and software, as would be

9 known to a person of ordinary skill in

10 the art, may be utilized for the purposes

11 stated supra in conjunction with the particular computer system **90** of Fig. 6," and that

12 "[w]hile embodiments of the present invention have been described herein for purposes

13 of illustration, many modifications and changes will become apparent to those skilled in

14 the art." '183 Patent at 9:63–10:7. Simply put, Zillow has not demonstrated the type of

15 "rare circumstances" that would justify making an exception to the "general plural rule,"

16 and the Court construes the disputed claim term to mean "one or more computer

17 processors."

18 **Conclusion**

19   For the foregoing reasons, the Court ORDERS:

20   (1)   The claim term "image data" is indefinite, and U.S. Patent No. 9,245,183 is

21 invalid under 35 U.S.C. § 112. Count Three of the Second Amended Complaint, docket

22 no. 156, alleging infringement of the '183 Patent, is DISMISSED with prejudice, and
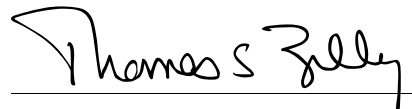
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1 finding no just reason for delay, *see* Fed. R. Civ. P. 54(b), the Court DIRECTS the Clerk

2 to enter judgment consistent with this Order in favor of Zillow and against IBM.

3   (2)   To the extent that the term "image data" is not indefinite, the terms

4 "condition score value(s)," "retrieving in real time . . . image data," "real time condition

5 values," and "a/said/the computer processor" are construed in the manner, or not further

6 construed for the reasons, set forth in this Order.

7   (3)   The Clerk is directed to send a copy of this Order to all counsel of record.

8   IT IS SO ORDERED.

9   Dated this 28th day of October, 2022.

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12 Thomas S. Zilly
    United States District Judge

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